TEAC

SERVICE MANUAL

SR-L30DAB

DAB/FM Stereo Radio

Digital Audio Broadcasting

For U.K.

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NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

Effective : January, 2004

S-0110A

1 SPECIFICATIONS

FM Tuner

Tuning range .....87.50 - 108.00 MHz (50 kHz steps)
Signal-to-Noise ratio .....65 dB (Mono), 60 dB (Stereo)

DAB Tuner

Tunig range .....Band 3, 174 MHz - 240 MHz
Input .....Telescopic antenna
Max signal ..... –3 dBm typ
Sensitivity ..... –96 dBm typ
Adjacent channel rejection .....35 dB typ
Digital output .....24 bit/48 kHz resolution

Speaker System

Unit .....7.5 cm Cone x 2

Connectors

Digital output.....Optical x 1
Analogue audio output .....RCA x 1
Headphone out.....3.5 mm stereo mini jack x 1

General

Output power .....2 W + 2 W
Power requirements.....DC +12V
Dimensions (W x H x D) .....310 x 146 x 95 mm
Weight .....2.0 kg
Operating temperature .....0 ˚C - 50 ˚C

Accessories

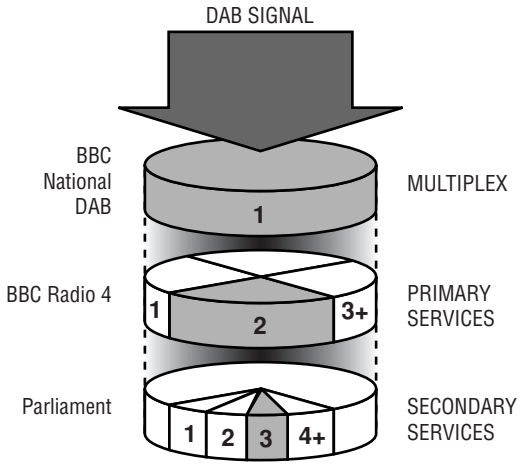
AC adaptor x 1

• Design and specifications are subject to change without notice.

About DAB

With this unit you can receive and listen to Digital Audio Broadcast (DAB) programmes. DAB uses digital, not analogue signals, resulting in near CD-quality audio with virtually interference-free reception. Along with superior quality audio, DAB can also deliver additional audio channels and text. In the future, computer data and images are also possible.

Digital radio is broadcast as groups of data called ensembles or multiplexes. Each multiplex can contain a number of stations (services) and each station contains a primary service and can contain secondary services as illustrated in the following diagram.

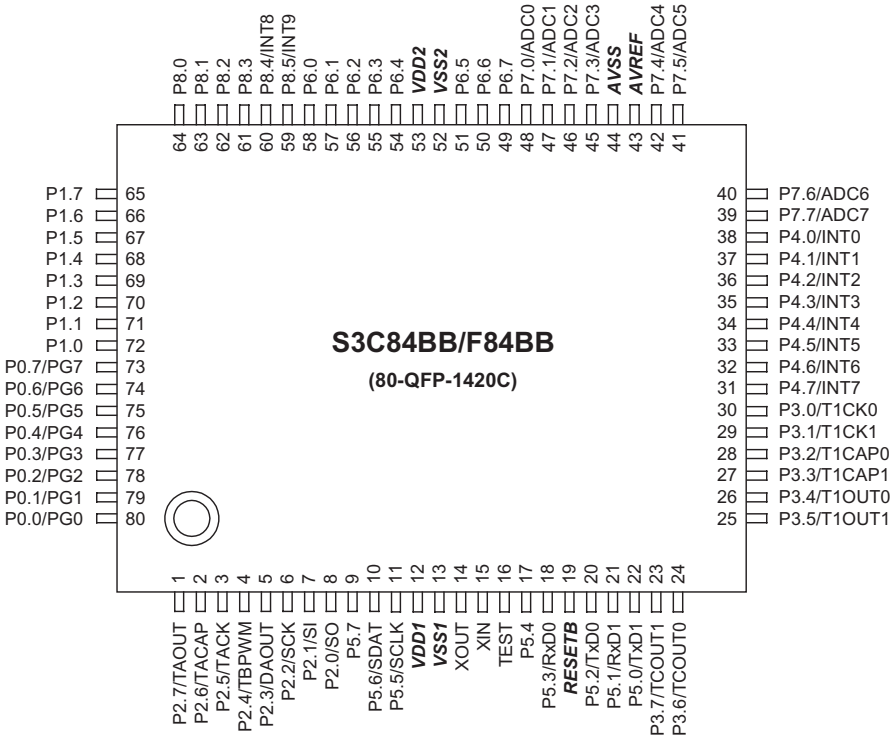


Each multiplex is transmitted in a set frequency range and received by this unit for decoding. You can receive multiplexes broadcast in the 174–240 MHz frequency band and store the services in each multiplex for you to access. The number of multiplexes you receive depend on your location. Channels used in the UK are in the range 10A to 12D.

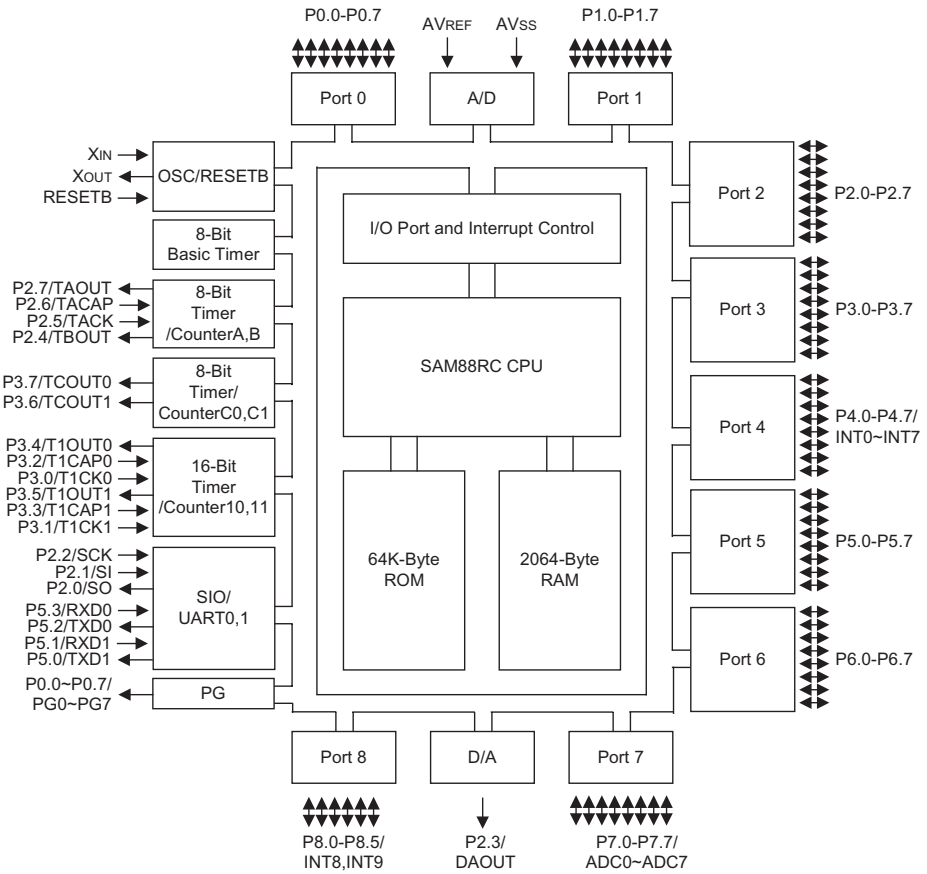
Multiplexes and stations have labels (names) that are used to identify them. Instead of needing to know the particular frequency of your favourite broadcast, you can simply select the station name. Secondary services and additional data such as text or multiplex info are also available.

2 MICROCOMPUTER PIN FUNCTIONS

2-1 Pin Assignment



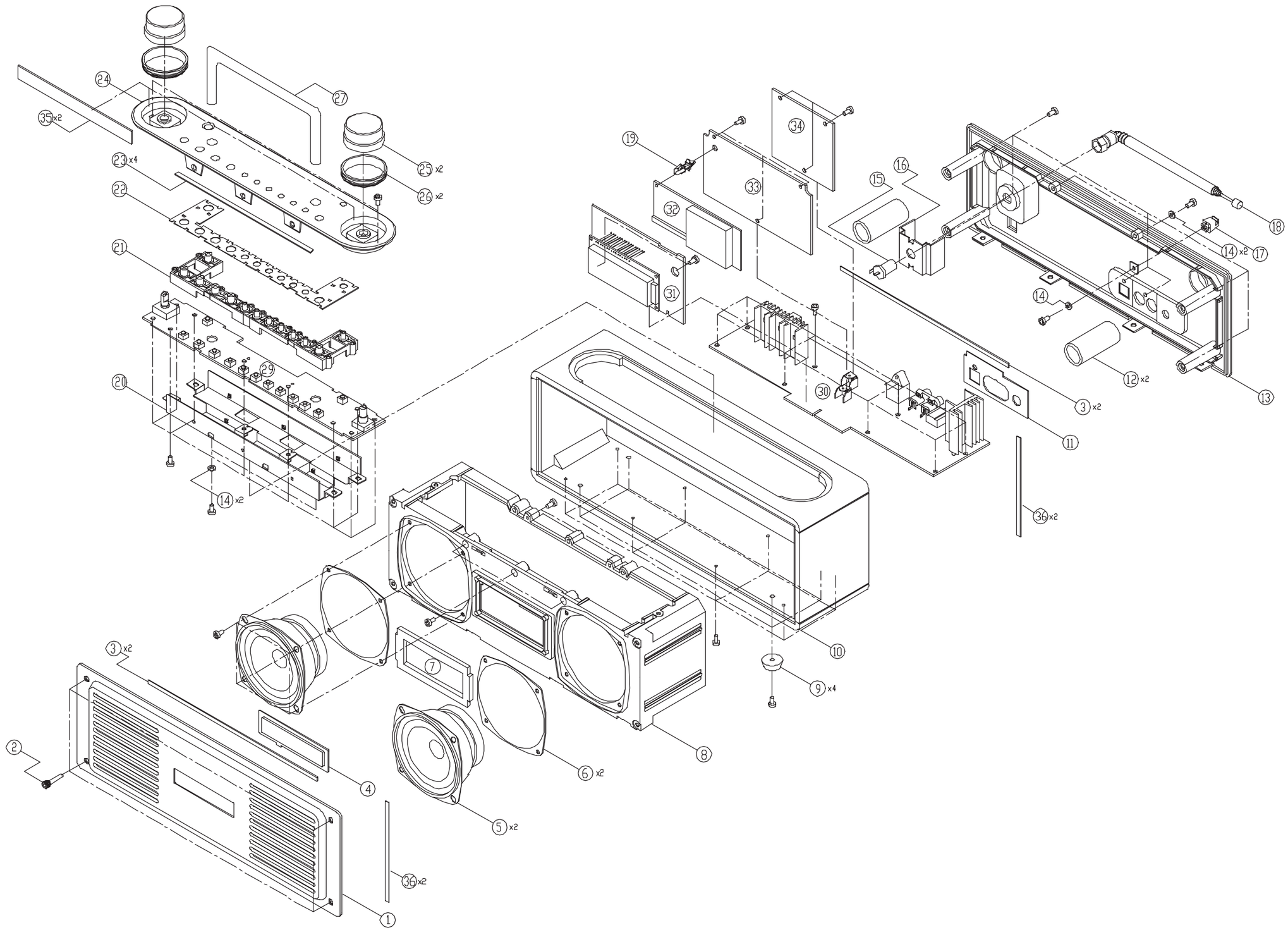
2-2 Block Diagram



2-3 Pin Functions

PIN No.	NAME	I/O	DESCRIPTION
1~8	LCD-DA	O	LCD Data Bus lines
10	SINO	I	UART Data input port
11	SOTO	O	UART Data output port
12	VDD1	I	Power supply port (+5V)
13	VSS1	-	GND
14	X OUT	O	10MHz crystal connection port
15	X IN	I	
16	TEST	I	Full-Down register connected internally
19	RESET	I	Reset input port ("L")
21	DAB_DIN	I	DAB Data input port
22	DAB_DOUT	O	DAB Data output port
23	DAB_CK	O	DAB Clock control port
24	FM_MUTE	O	FM MUTE control port ("L")
25	PLL_D	O	PLL Data output port
26	PLL_CE	O	PLL Enable control port
27	PLL_CLK	O	PLL Clock control port
28	STEREO	I	Tuner module stereo control port
29	TUNED	I	Tuner module tuned control port
30	PLL_DIN	I	PLL Data input port
31	NC	-	
32	NC	-	
33	BACK_UP	I	BACKUP mode control port ("L")
34	NC	-	
35	NC	-	
36	NC	-	
39,40	GND	-	GND
41	SCROLL_UP	I	Scroll up control port
42	SCROLL_DN	I	Scroll down control port
43	VREF	I	A/D converter reference voltage
44,45	AVSS	-	GND
46	KEY 3	I	Key 3 control port
47	KEY 2	I	Key 2 control port
48	KEY 1	I	Key 1 control port
52	VSS2	-	GND
53	VDD2	I	Power supply port (+5V)
54	SYSTEM_MUTE	O	System MUTE control port ("L")
55	NC	-	
56	DAB_ON	O	DAB on control port ("H")
57	FM_ON	O	FM on comtrol port ("H")
58	POWER_ON	O	Unit turn on control port ("H")
65~71	OPTION	I	Option control port
78	RS_P	O	Register selection (H:Data registor, L:Instruction registor)
79	R/W	O	Read/Write selection (H:Read, L:Write)
80	ES_P	O	Enable signal for LCM

3 EXPLODED VIEWS AND PARTS LIST



EXPLODED VIEW LIST

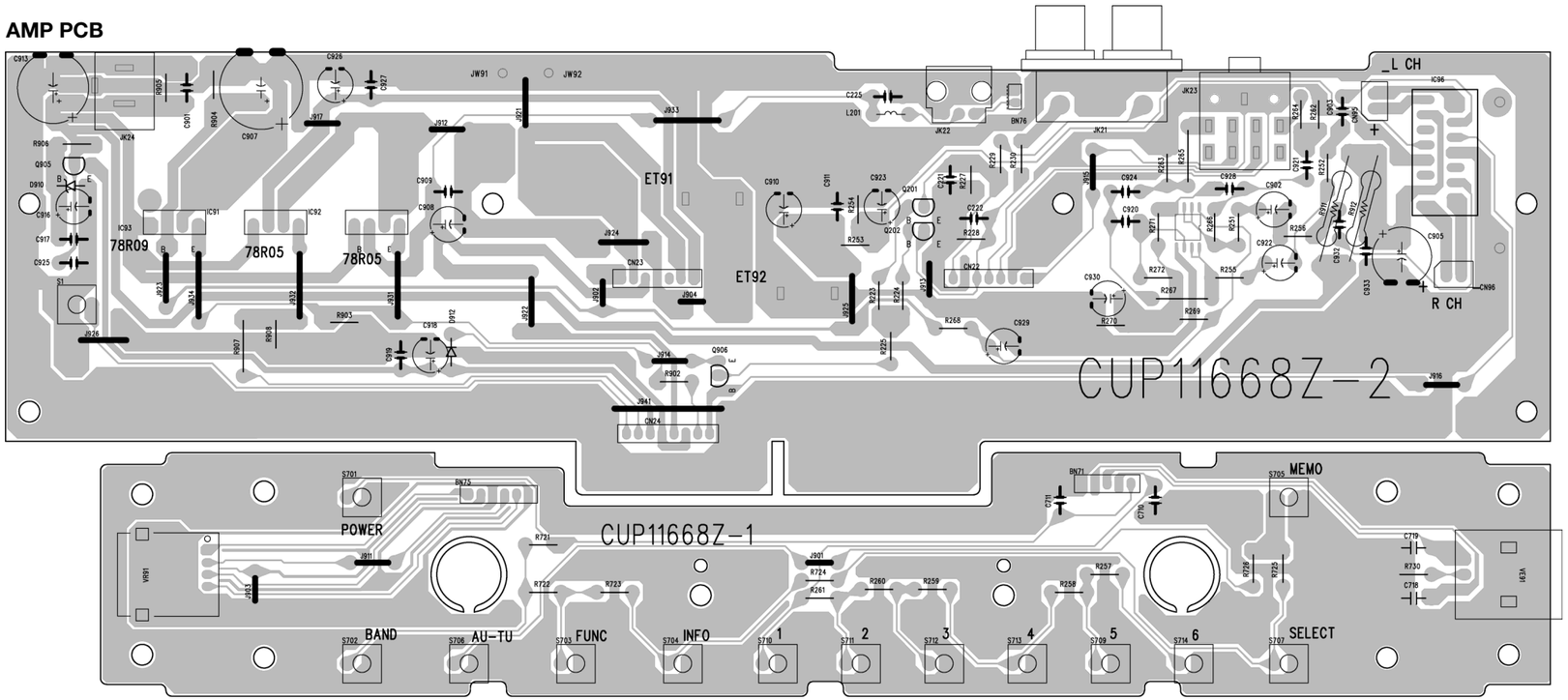
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1	CKD1A053R6ZG5	FRONT CABINET	
2	CHD1A049	SPECIAL SCREW	
3	CHG1A271	CUSHION	
4	CGU1A325A14Z	LCD WINDOW	
5	CAS08FP256SCZ	FULL RANGE SPEAKER	
6	CHG1A272	SPEAKER CUSHION	
7	CHG1A278	CUSHION	
8	CGW1A376R4	FRONT FRAME	
9	KKL1A033	FOOT	
10	CKA1A167	WOOD CABINET	
11	CHG1A269	CUSHION	
12	CHP1A054	PAPER PORT	
13	CKD1A052R6ZG5	REAR CABINET	
14	CHG1A273	RUBBER WASHER	
15	CJJ3G013Z	TERMINAL	
16	CMD1A520	TERMINAL BRACKET	
17	CMH1A228R6	ANT HOLDER	
18	CSA1A022Z	ROD ANT	
19	CMH1A226	PCB SUPPORT	
20	CMD1A515	TOP BRACKET	
21	CBT1A921R6C22	TACT KNOB	
22	CHG1A270	TOP CUSHION	
23	CHG3A271	CUSHION	
24	CKD1A054R6ZG5	TOP CABINET	
25	CBN1A180R6G5	VOLUME KNOB	
26	CGX1A346R6C22	DECORATION RING	
27	CKH1A002G17	PORTABLE HANDLE	
29	COP11668B	AMP PCB ASSY	
30	COP11668B	AMP PCB ASSY	
31	COP11667B	MICOM PCB ASSY	
32	HNVFS2020VE	DAB MODULE	
33	COP11667B	MICOM PCB ASSY	
34	CNVMB001FA1-8P	TUNER MODULE	
35	CHG1A276	CUSHION	
36	CHG2A271	CUSHION	

INCLUDED ACCESSORIES

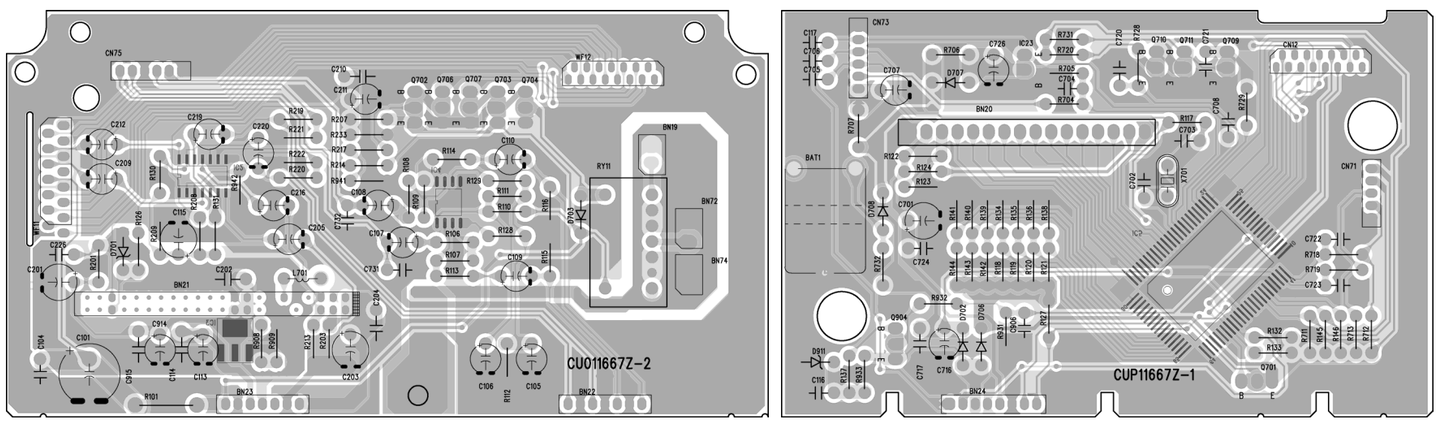
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A09899200	OWNER'S MANUAL	
⚠	CJS3F003Z	AC ADAPTOR	

4 PC BOARDS AND PARTS LIST

AMP PCB



MICOM PCB



AMP PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	COP11668B	PCB ASSY,AMP
	CUP11668Z	PCB,AMP
CN22,CN23	KJP07GA98ZM	WAFER,MOLEX35336-0710
CN24	KJP08GA98ZM	WAFER,MOLEX35336-0810
D910	HVDMTZJ6.2BT	DIODE,ZENER 6.2V 1/2W
D912	HVD1SS133MT	DIODE,1SS133T-77
IC91,IC92	⚠HVIKA78R05	IC,KA78R05
IC93	⚠HVIKA78R09API	IC,KA78R09API
IC95	HVINJM2068MDTE1	IC,NJM2068MD-TE1
IC96	HVITDA7266S	IC,TDA7266S
JK21	CJJ4N063Z	JACK,BOARD
JK22	HJST0TX179L	MODULE,OPTICAL T0TX179L
JK23	HJJ2D008Z	JACK,HEADPHONE HTJ-035-10BB
JK24	HJJ1B002Z	JACK,DC POWER HTJ-020-05B
L201	HLQ02C2R7KT	COIL,AXIAL 2.7UH K
Q201,Q202	HVTKTD1302T	TR,KTD1302
Q905	⚠HVTKSC2316YT	TR,KSC2316Y
Q906	HVTKRA107MT	TR,KRA107M
R911,R912	⚠CRG2ANJ3R3H	R,METAL 2W 3.3 OHM
S001	HST1A016Z	SW,TACT SKQNAED010
S701-S707	HST1A016Z	SW,TACT SKQNAED010
S709-S714	HST1A016Z	SW,TACT SKQNAED010
VE91	HSR2A028Z	VR,ENCODER EC12B244S0034ZZZ
VR91	CVV2X05B503Z	R,VARIABLE

MICOM PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	COP11667B	PCB ASSY,MICOM
	CUP11667Z	PCB,MICOM
	HALHY1602F305	LCD MODULE,HY-1602F-305
	HNVFS2020VENICE	DAB MODULE,FS2020VENICE1.1
BAT1	HABGP40BVH3A3H	BATTERY,RECHARGEABLE
BN19	KJP02TT155ZY	PIN,HEADER
BN20	KJP16TT164ZY	PIN,HEADER
BN21	CJP44TT153ZY	PIN,HEADER
BN22,BN23	KJP07GB99ZM	CONNECTOR,HOUSING
BN24	KJP08GB99ZM	CONNECTOR,HOUSING
CN12	KJP15GA117ZG	CARD CABLE,WAFER
CN71	KJP05GB46ZM	WAFER,MOLEX53015
CN73,CN75	KJP06GA19ZM	WAFER,MOLEX53014-0610
D701	HVDMTZJ3.3BT	DIODE,ZENER 3.3V 1/2W
D702,D703	HVD1SS133MT	DIODE,1SS133T-77
D706-D708	HVD1SS133MT	DIODE,1SS133T-77
D911	HVDMTZJ4.7BT	DIODE,ZENER 4.7V 1/2W
IC21	HVINJM2068MDTE1	IC,NJM2068MD-TE1
IC22	BVI74HC4066D	IC,74HC4066D
IC23	HVIRE5VL28CATZ	IC,RE5VL28CATZ
IC71	HVIS3F84BB	IC,FLASH U-COM S3F84BB
IC94	⚠HVIRC1117ST	IC,RC1117ST
L701	HLQ02C2R7KT	COIL,AXIAL 2.7UH K
Q701-Q703	HVTKRA107MT	TR,KRA107M
Q704	HVTKRC107MT	TR,KRC107M
Q706,Q707	HVTKRC107MT	TR,KRC107M
Q709-Q711	HVTKRC107MT	TR,KRC107M
Q904	HVTKSB811YT	TR,KSB811Y
RY11	BSL2A016ZE	RELAY
WF11	KJP13GA115ZG	WAFER,CARD CABLE
WF12	KJP15GA117ZG	CARD CABLE,WAFER 15P
X701	HOX10000E220TF	CRYSTAL,CL-22P